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Science Abstracts Series B
January – June 1996

Subject Index

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SIX-MONTHLY INDEXES TO ELECTRICAL & ELECTRONICS ABSTRACTS

Twice a year as part of their subscription to Electrical & Electronics Abstracts, subscribers receive cumulative indexes for the periods January-June and July-December. Each index is in two parts – a Subject Index, and an Author Index which comprises personal and corporate author indexes, and indexes to conferences and book titles. The List of Journals abstracted by INSPEC is also included with the July-December issue of the Author Index, while the supplement to that List is included with the January-June issue. Cumulative indexes for earlier years are also available: for details please see the inside back cover.

Subject index

The Subject index provides an alphabetical subject key to the articles included in the abstracts journal. Some general guidance on its use is given below:

1. Look in the index for the name of the specific subject in which you are interested. In most cases this name will be a heading in the index and you will find relevant articles listed under it. The majority of the subject headings fall into the following categories: property, phenomena, substance or named objects, instruments, device, theory, method, process, application, event.

2. Occasionally you will be directed from the subject heading chosen to a different heading under which the relevant or additional articles are listed.

3. If you do not find the subject heading you first chose, try a more general heading.

4. Each entry under the heading relates to an article appearing in the abstracts journal and gives the serial number of that article in the journal, e.g. 12345 refers to abstract number 12345 for the period covered by the Index.
The language of the article, if it is not in English, is also indicated, e.g. CCD imaging, multilayer and interline transfer develop (*Japanese*) 40162.

Each entry starts with a Keyword or Keyphrase considered to be most relevant to the heading. On sorting these Keywords, the qualifying prefixes are usually ignored (e.g. α-brass, 5-sulphosalicylic, 31 Cygni, n-Ge are sorted under brass, sulphosalicylic, Cygni, Ge respectively).

There are three main Keyword lists: alphabetical A-Z, elementary particles, and chemical symbols (organic substances are written and not given as chemical formula). More than one Keyword list may be present under each subject heading.

For document on, say, 'photoemission of germanium' at least two access points 'photoemission' and 'germanium' are provided. Under the heading 'photoemission' the Keyword will be 'Ge' and under 'germanium' the Keyword will be 'photoemission'.

In a case like this, it is advisable and quicker to use the heading 'photoemission' and go straight to the chemical symbol list for 'Ge'.

Intermetallic compounds are indexed under the appropriate alloy headings. The chemical formula is used as Keyword. However, it is important to realise in searching the chemical symbol list that, at present, alloys and intermetallic compounds are sorted separately. For example FeCo is sorted at the end of the Fe-list e.g. Fe-Al,... Fe-Co,... Fe-Si,... Fe-Si-B,... FeCo,... FeSi and so on in this order.

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INSPEC

Electrical & Electronics Abstracts

Science Abstracts Series B

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Subject Index

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Abbreviations and Acronyms

Abbreviations and acronyms are used in the modifiers in all INSPEC Cumulative Subject Indexes. Individual terms should be readily understood in the context of the subject headings. **Inorganic substances** are usually given by their chemical formulae. Iron, aluminium and gallium garnets appear in the formula lists as MIG, MAG and MGG (where M is metal element, e.g. YIG and YAG); $(Pb,La)(Zr,Ti)O_3$ and $Pb(Zr,Ti)O_3$ appear as PLZT and PZT; ZrF_4-BaF_2-LaF_3-AlF_3-NaF and ZrF_4-BaF_2-LaF_3-AlF_3-NaF-PbF_2 appear as ZBLAN and ZBLANP. **Organic substances** including **liquid crystals** and **polymers** are not given as formulae but common abbreviations are used.

1D	one-dimensional
2D	two-dimensional
2DEG	two-dimensional electron gas
3D	three-dimensional
4GL	fourth generation language
A/D	analogue-to-digital
ABB	Asea Brown Boveri
ABC	aerial bundled cables/conductors
ABS resin	acrylonitrile-butadiene-styrene resin
AC	alternating current
ACD	automatic call distribution
ACEL	AC electroluminescent
ACI	adjacent channel interference
ACRT	accelerated crucible rotation technique
ACSR	aluminium conductor steel reinforced
ACT	acoustic charge transport
ACTS	Advanced Communication Technology Satellite
ACTV	advanced compatible television
ACV	air cushion vehicle
ADC	analogue-to-digital conversion
ADM	adaptive delta modulation
ADP	administrative data processing
ADPCM	adaptive differential PCM
ADS	automatic depressurisation system
ADTV	advanced definition television
AE	acoustic emission
AES	Auger electron spectra (-oscopy)
AF	audio frequency
AFBC	atmospheric fluidised bed combustion
AFC	automatic frequency control
AFL	abstract family of languages
AFM	atomic force microscopy
AFMR	antiferromagnetic resonance
AFR	away from reactor (spent fuel storage)
AGB	asymptotic giant branch
AGC	automatic gain control
AGN	active galactic nucleus (nuclei)
AGR	advanced gas-cooled reactor
AGS	alternating gradient synchrotron
AGV	automatic guided vehicle
AHP	analytic hierarchy process
AI	artificial intelligence
AIN	advanced intelligent networks
ALARA	as low as reasonably achievable
ALE	atomic layer epitaxy
ALGOL	Algorithmic Language
ALS	Advanced Light Source
ALU	arithmetic logic unit
ALV	autonomous land vehicle
ALWR	advanced light water reactor
AM	air mass number *or* amplitude modulation
AM/FM	automated mapping/facilities management
AMLCD	active matrix liquid crystal display
AMPS	Advanced Mobile Phone System
AMPTE	active magnetospheric particle tracer explorers
AMR	automatic meter reading
AMS	accelerator mass spectroscopy
ANA	automatic network analyser
ANN	artificial neural network
ANOVA	analysis of variance
ANS	Advanced Neutron Source
ANSI	American National Standards Institute
AOI	automatic optical inspection
APACHE	Accelerator for Physics and Chemistry of Heavy Elements
APC	adaptive predictive coding
APCM	adaptive pulse code modulation
APCVD	atmospheric pressure CVD
APD	avalanche photodiode
APFIM	atom probe field ion microscopy
APK	amplitude phase keying
APL	A Programming Language
APS	Advanced Photon Source *or* appearance potential spectra (-oscopy)
APW	augmented plane wave
APWR	advanced pressurised water reactor
ARMA	autoregressive moving average
ARMAX	autoregressive moving average exogenous
ARPA	Advanced Research Projects Agency
ARPES	angle resolved photoemission spectra (-oscopy)
ARQ	automatic repeat request
ART	adaptive resonance theory
ARUPS	angular resolved UPS
ASCII	American standard code for information interchange
ASD	adjustable speed drives
ASE	amplified spontaneous emission
ASIC	application specific integrated circuit
ASK	amplitude shift keying
ASPSK	antipodal Stokes parameters shift keying
ASSP	application specific standard product
AT&T	American Telephone & Telegraph
ATC	air traffic control
ATCS	Advanced Train Control System
ATE	automatic test equipment
ATF	Advanced Toroidal Facility
ATM	asynchronous transfer mode *or* automatic teller machine *or* Axilrod-Teller-Moto
ATMS	assumption-based truth maintenance system

ATPG	automatic test pattern generation
ATR	attenuated total reflection or automatic target recognition
ATV	advanced television
ATWS	anticipated transients without scram
AVC	automatic volume control
AVHRR	advanced very high resolution radiometer
AWGN	additive white Gaussian noise
B-ISDN	broadband ISDN
BAER	brainstem auditory evoked response
BARITT	barrier injection transit time
BASIC	Beginners' All-purpose Symbolic Instruction Code
BAW	bulk acoustic wave
BBC	British Broadcasting Corporation
BBD	bucket-brigade device
BBGKY	Bogoliubov-Born-Green-Kirkwood-Yvon
BCC	body centred cubic
BCD	binary-coded decimal
BCDMOS	bipolar-CMOS-DMOS
BCH	Bose-Chadhuri-Hocquenghem
BCS	Bardeen-Cooper-Schrieffer
BCT	body centred tetragonal
BEBC	Big European Bubble Chamber
BEDT-TTF	bis(ethylenedithio)-tetrathiafulvalene (-inium)
BEEM	ballistic electron emission microscopy
BEM	boundary element method
BEPC	Beijing Electron Positron Collider
BER	bit error rate
BFL	buffered FET logic
BFN	beam-forming network
BFO	beat-frequency oscillator
BH	buried heterostructure
BIBO	bounded input, bounded output
BiCMOS	bipolar CMOS
BiFET	bipolar field effect transistor
BIL	buried injection logic
BILBO	built-in logic block observation
BiMOS	bipolar metal-oxide-semiconductor
BIOS	basic input/output system
BIS	bremsstrahlung isochromat spectroscopy
BISDN	broadband ISDN
BISR	built-in self-repair
BIST	built-in self-test
BIT	built-in test
BJT	bipolar junction transistor
BNFL	British Nuclear Fuels plc
BOC	Bell Operating Company
BOD	bistable optical device
BOX	buried oxide
BP	backpropagation *or* British Petroleum
BPSK	binary phase shift keying
BPX	burning plasma experiment
BRET	breeder reprocessing engineering test
BSI	British Standards Institution
BTA	Basic Technology Accelerator
BTSC	Broadcast Television Systems Committee
Btx	Bildschirmtext
BVP	boundary value problem
BWG	beam waveguide
BWIP	Basalt Waste Isolation Project
BWO	backward wave oscillator
BWR	boiling water reactor
BWT	backward wave tube
C-V	capacitance-voltage
C/N	carrier-to-noise
C^2	command and control
C^3	cleaved coupled cavity *or* command, control and communications
C^3I	command, control, communications and intelligence
C^3L	complementary constant current logic
C^4	command, control, communications and computers
C^4I	command, control, communications, computers and intelligence
CAA	computer aided analysis
CAD	computer aided design
CADAT	computer aided design and testing
CADD	computer aided draughting and design
CAE	computer aided engineering
CAES	compressed air energy storage
CAI	common air interface *or* computer assisted instruction
CAIBE	chemically assisted ion beam etching
CAL	computer aided learning
CAM	computer aided manufacturing *or* content addressable memory
CAMAC	computer automated measurement and control
CANDU	Canadian deuterium uranium
CAPP	computer aided process (production) planning
CAQ	computer aided quality assurance
CAR	computer aided retrieval
CARM	cyclotron autoresonance maser
CARS	coherent anti-Stokes Raman scattering (spectra)
CASE	computer aided software engineering
CAT	computer assisted tomography *or* computerised axial tomography
CATR	compact antenna test range
CATT	controlled avalanche transit transistor
CATV	cable television *or* community antenna television
CAV	citizens band
CBE	chemical beam epitaxy
CBED	convergent beam electron diffraction
CBI	computer based instruction
CBOOA	cyanobenzylidene octyloxyaniline
CBR	case based reasoning
CBT	computer based training
CC	coupled channels
CCBA	coupled channel Born approximation
CCCS	current controlled current source
CCD	charge-coupled device
CCFL	counter current flow limiting (LOCA phenomenon)

CCI	co-channel interference
CCII	second generation current conveyor
CCIR	International Radio Consultative Committee
CCITT	International Telephone & Telegraph Consultative Committee
CCL	capacitor coupled logic
CCS	common channel signalling *or* computer communications software *or* calculus of communicating systems
CCTF	Cylindrical Core Test Facility
CCTR	Culham Conceptual Tokamak Reactor
CCTV	closed circuit television
CCVS	current controlled voltage source
CD	compact disc *or* critical dimension
CD-I	compact disc - interactive
CD-ROM	compact disc ROM
CD-V	compact disc - video
CDFR	Commercial Demonstration Fast Reactor
CDI	collector diffusion isolation
CDLC	cellular data link control
CDM	code division multiplexing
CDMA	code division multiple access
CDP	common depth point
CDW	charge-density wave
CEBAF	Continuous Electron Beam Accelerator Facility
CECL	cascade-emitter coupled logic
CELP	code excited linear prediction
CEM	channel electron multiplier
CEMS	conversion electron Mossbauer spectra (-oscopy)
CEPA	coupled electron pair approximation
CEPT	Conference of European Postal and Telecommunications
CERDIP	ceramic dual-in-line package
CERN	European Council for Nuclear Research
CESAR	CERN Electron Storage and Accumulation Ring
CESR	conduction electron spin resonance
CETI	contact with extraterrestrial intelligence
CFA	continued fraction approximation
CFAR	constant false alarm rate
CFBC	circulating fluidised bed combustion
CFC	chlorofluorocarbon
CFG	context free grammar
CFIE	combined field integral equation
CFL	context free language
CFSK	coherent frequency shift keying
CGA	Computer Graphics Adaptor
CGH	computer-generated holography (-gram)
CGTO	contracted Gaussian-type orbital
CHF	coupled Hartree-Fock
CHILL	CCITT High Level Language
CHO	Chinese hamster ovary
CHP	combined heat and power
CI	configuration interaction
CID	charge injection device
CIDEP	chemically induced dynamical electron polarisation
CIDNP	chemically induced dynamical nuclear polarisation
CIM	computer integrated manufacture (-ing) *or* constituent interchange model
CIRC	cross-interleaved Reed-Solomon code
CISC	complex instruction set computer
CIT	Compact Ignition Tokamak
CLAN	cordless LAN
CLC	cholesteric liquid crystal
CLOS	command-to-line-of-sight
CLV	constant linear velocity
CMI	computer managed instruction
CML	current-mode logic
CMM	coordinate measuring machine
CMOS	complementary metal-oxide-semiconductor
CMS	cable management system
CNC	computerised numerical control
CNDO	complete neglect of differential overlap
CNR	carrier-to-noise ratio
COB	chip-on-board
COBOL	Common Business Oriented Language
COD	crack opening displacement
COG	chip-on-glass
COM	computer output to microform (fiche or film) *or* coupling of modes
COMFET	conductivity-modulated field effect transistor
CORDIC	coordinate rotation digital computer
COVA	computer code validation
CP	charge, parity
CP-MAS	cross-polarisation MAS
CPA	coherent potential approximation *or* critical path analysis
CPC	compound parabolic concentrator
CPE	customer premises equipment
CPFSK	continuous phase FSK
CPM	continuous phase modulation *or* critical path method
CPN	coloured Petri net *or* customer premises network
CPSK	coherent phase shift keying
CPT	charge, parity, time
CPU	central processing unit
CPW	coplanar waveguide
CQPSK	coherent quadrature PSK
CRBR	Clinch River Breeder Reactor Project
CRC	cyclic redundancy check
CRCW	concurrent read, concurrent write
CRDA	control rod drop accident
CREW	concurrent read, exclusive write
CRMA	cyclic reservation multiple access
CRNL	Chalk River Nuclear Laboratories
CRO	cathode ray oscilloscope
CRSR	coherent resonant Stokes rotation
CRT	cathode ray tube
CS	coupled states
CSCW	computer supported cooperative work
CSI	current source invertor

CSM	continuous slowing down models
CSMA	carrier sense multiple access
CSMA/CD	CSMA with collision detection
CSP	channel substrate planar *or* communicating sequential processes *or* constraint satisfaction problem
CSRS	coherent Stokes-Raman spectra (-oscopy)
CSSB/AM	companded single sideband amplitude modulation
CSTR	continuous stirred tank reactor
CT	computerised tomography *or* current transformer
CT1/2/3	cordless telephony (of 1st, 2nd, 3rd generation)
CTD	charge transfer device
CTE	coefficient of thermal expansion
CTL	complementary-transistor logic
CTR	controlled thermonuclear reactor
CVD	chemical vapour deposition
CVSDM	continuously variable slope delta modulation
CW	continuous wave
CZ	Czochralski
D/A	digital-to-analogue
DAB	digital audio broadcasting
DAC	digital-to-analogue conversion
DACS	digital access and cross-connect system
DAD	digital audio disc
DAMA	demand assigned multiple access
DARMA	deterministic autoregressive moving average
DASD	direct access storage device
DAT	digital audio tape
DATAC	digital autonomous terminal access communication
DAW	dry active waste
DBMS	database management system
DBR	distributed Bragg reflector
DBS	direct broadcasting by satellite
DC	direct current
DC-PBH	double-channel PBH
DCEL	direct current electroluminescent
DCFL	direct-coupled FET logic
DCG	dichromated gelatin
DCLC	drift cyclotron loss cone (instability)
DCS	digital cross-connect system
DCT	discrete cosine transform
DCTL	direct-coupled transistor logic
DCVS	differential cascode voltage switch
DDC	direct digital control
DDL	diode-diode logic
DDS	direct digital synthesis
DECENT	distribution of exact classical energy transfer
DECT	digital European cordless telephone (telecommunication)
DEDS	discrete event dynamic system
DEFT	density functional theory
DENOX	nitrogen oxides removal
DES	data encryption standard

DESIRE	diffusion enhanced silylating resist
DESY	Deutsches Electron Synchrotron
DF	Dirac-Fock
DFB	distributed feedback
DFE	decision feedback equaliser
DFT	discrete Fourier transform *or* design for testability
DFWM	degenerate four-wave mixing
DH	double heterostructure
DHBT	double heterojunction bipolar transistor
DHF	Dirac-Hartree-Fock
DHT	discrete Hartley transform
DIAL	differential-absorption lidar
DIET	desorption induced by electronic transitions
DIL	dual-in-line
DIP	dual in-line package
DIS	deep inelastic scattering
DITE	Divertor in Torus Experiment
DLA	diffusion limited aggregation
DLTS	deep level transient spectra (-oscopy)
DM	delta modulation
DMA	direct memory access
DMC	dynamic matrix control
DMM	digital multimeter
DMOS	double-diffused metal-oxide-semiconductor
DMSK	differential minimum shift keying
DMSO	dimethylsulphoxide
DNA	deoxyribonucleic acid *or* Digital Network Architecture
DNMR	double nuclear magnetic resonance
DNTS	digital data exchange network testing system
DOA	direction of arrival
DOBAMBC	p-decyloxybenzylidene p'-amino 2-methyl butyl cinnamate
DoD	Department of Defense (USA)
DOE	Department of Energy (USA)
DOF	degree(s) of freedom
DOPSK	differential offset phase shift keying
DORIS	Doppel-Ring-Speicher
DOS	disc operating system *or* density of states
DOVETT	double velocity transit time
DP	data processing
DPCM	differential pulse code modulation
DPDA	deterministic pushdown automaton
DPPC	dipalmitoyl phosphatidyl chloride
DPPH	diphenylpicrylhydrazyl
DPSK	differential phase shift keying
DQDB	distributed queue dual bus
DQPSK	differential quadrature PSK
DRAM	dynamic random access memory
DRO	dielectric resonator oscillator
DS-SS	direct sequence spread spectrum
DS-SSMA	direct sequence SSMA
DSA	digital subtraction angiography
DSAM	Doppler shift attenuation method
DSB	double sideband
DSC	differential scanning calorimetry
DSI	digital speech interpolation
DSL	digital subscriber line

DSM	demand side management
DSO	digital storage oscilloscope
DSP	digital signal processor (-ing)
DSS	decision support system *or* digital subscriber signalling
DTA	differential thermal analysis
DTL	diode transistor logic
DTMF	dual tone multi-frequency
DTP	desktop publishing
DTPP	Demonstration Tokamak Power Plant
DTU	dual topological unitarisation
DV-Xα	discrete variational Xα
DVI	digital video interactive
DVM	digital voltmeter
DWBA	distorted wave Born approximation
DWIA	distorted wave impulse approximation
DWPF	Defence Waste Processing Facility
E1	electric dipole
E2	electric quadrupole
E2PROM	electrically erasable PROM
EAROM	electrically alterable ROM
EAS	extensive air shower
EAX	electronic automatic exchange
EB	exponential Born
EBBA	4-ethoxybenzylidene-4n-butylaniline
EBIC	electron beam induced current(s)
EBL	explanation based learning
EBR	experimental breeder reactor
EBT	Elmo Bumpy Torus
EBU	European Broadcasting Union
ECC	emergency core cooling *or* error correction code
ECCM	electronic counter-counter measures
ECCS	emergency core cooling system
ECELR	Epithermal Critical Experiment Laboratory Reactor
ECG	electrocardiography (-gram)
ECL	emitter coupled logic
ECM	electronic countermeasures
ECMWF	European Centre for Medium Range Weather Forecasts
ECoG	electrocortiography (-gram)
ECR	electron cyclotron resonance
ECRH	electron cyclotron resonance heating
EDA	ethylene diamine *or* electronic design automation
EDAX	energy dispersive X-ray analysis
EDF	Electricite de France
EDI	electronic data interchange
EDIF	electronic data interchange format
EDP	electronic data processing
EDTA	ethylene diamine tetra-acetic acid
EDTV	extended definition TV
EDW	electron density wave
EDX	energy dispersive X-ray
EEG	electroencephalography (-gram)
EELFS	electron energy loss fine structure
EELS	electron energy loss spectra (-oscopy)
EEPLD	electrically erasable PLD
EEPROM	electrically erasable PROM
EFG	edge-defined film fed growth
EFIE	electric field integral equation
EFL	emitter-follower logic *or* emitter function logic
EFM	extended Flygare method
EFT	electronic funds transfer
EGA	Enhanced Graphics Adaptor
EGG	electrogastrography (-gram)
EHD	electrohydrodynamics
EHDTV	enhanced high definition TV
EHF	extremely high frequency
EHP	electron-hole potential method
EHT	extended Huckel theory *or* extra high tension
EHV	extra high voltage
EIRP	equivalent isotropically radiated power
EIS	electrochemical impedance spectroscopy
EKF	extended Kalman filter
EKG	electrokymography (-gram)
ELDOR	electron electron double resonance
ELF	extremely low frequency
ELO	epitaxial lateral overgrowth
EM	electromagnetic *or* expectation-maximisation
EMC	electromagnetic compatibility *or* European Muon Collaboration
EMF	electromotive force
EMG	electromyography (-gram)
EMI	electromagnetic interference
EMP	electromagnetic pulse
EMS	energy management system
EMTP	electromagnetic transients program
ENDOR	electron nuclear double resonance
ENEL	Ente Nazionale per l'Energia Elettrica (Italian National Electric Energy Agency)
ENG	electronic news gathering
ENSO	El Nino - Southern Oscillation
EOF	end-of-file
EOG	electrooculography (-gram)
EOQ	economic order quantity
EOS	electrical overstress
EPA	Environmental Protection Agency (USA)
EPLD	electrically programmable logic device
EPMA	electron probe microanalysis
EPR	Einstein-Podolsky-Rosen *or* electron paramagnetic resonance *or* ethylene propylene rubber
EPRI	Electric Power Research Institute
EPROM	erasable PROM
ERBE	Earth Radiation Budget Experiment
ERG	electroretinography (-gram)
ES	expert system
ESA	European Space Agency
ESCA	electron spectroscopy for chemical analysis
ESCAR	Experimental Superconducting Accelerating Ring
ESD	electron stimulated desorption *or* electrostatic discharge
ESDIAD	electron stimulated desorption ion angular distributions
ESF	engineering safety features

ESM	electronic support measures
ESOC	European Space Operations Centre
ESP	electrostatic precipitators
ESPI	electronic speckle pattern interferometry
ESPRIT	estimation of signal parameters by rotational invariance techniques *or* European Strategic Programme for Research in Information Technology
ESR	electron spin resonance
ESS	electronic switching system
ESTELLE	Extended State Transition Language
ET	bis(ethylenedithio)-tetrathiafulvalene
ETA-II	Engineering Test Accelerator-II
ETACS	Extended Total Access Communications System
ETM	engineering test model
ETSI	European Telecommunications Standards Institute
ETV	enhanced TV
EUV	extreme ultraviolet
EW	electronic warfare
EX-OR	exclusive OR (logic)
EXAFS	extended X-ray absorption fine structure
FAMOS	floating gate avalanche MOS
FBC	fluidised bed combustion
FBL	fly-by-light
FBR	fast breeder reactor
FCC	face centred cubic *or* Federal Communications Commission (USA)
FCFS	first come first served
FCI	fuel-cladding interaction
FCT	field controlled thyristor
FDD	floppy disc drive
FDDI	fibre distributed data interface
FDM	frequency division multiplex(ing)
FDMA	frequency division multiple access
FDNC	frequency dependent negative conductance
FDNR	frequency dependent negative resistance
FDTD	finite difference time-domain
FEA	finite element analysis
FEC	forward error correction
FECL	feedback ECL
FED	Fusion Engineering Device (USA)
FEDC	Fusion Engineering Device Centre (USA)
FEL	free electron laser
FEM	field emission microscopy *or* finite element method
FER	Fusion Experimental Reactor (Japan)
FET	field effect transistor
FFH	fast frequency hopping
FFHR	fusion-fission hybrid reactor
FFT	fast Fourier transform
FFTF	Fast Flux Test Facility
FGD	flue gas desulphurisation
FH-SS	frequency hopped spread spectrum
FH-SSMA	frequency hopped SSMA
FHNC	Fermi hypernetted chain
FIB	focused ion beam
FIFO	first in, first out
FIM	field ion microscopy
FIMOS	floating gate ionisation injection metal-oxide-semiconductor
FIPOS	full isolation by porous oxidised silicon
FIR	far infrared *or* finite impulse response
FISO	fast in, slow out
FITL	fibre in the loop
FLC	ferroelectric liquid crystal
FLCD	ferroelectric liquid crystal display
FLIR	forward looking infra-red
FLL	frequency locked loop
FLOPS	floating point operation(s) per second
FLOTOX	floating-gate tunnel oxide
FM	frequency modulation
FMEA	failure mode and effects analysis
FMECA	failure modes effects and criticality analysis
FMIT	Fusion Materials Irradiation Test Facility
FMR	ferromagnetic resonance
FMS	flexible manufacturing system *or* flight management system
FORTRAN	Formula Translation (language)
FOV	field of view
FPA	focal plane array
FPC	fusion power core
FPGA	field programmable gate array
FPLA	field programmable logic array
FPT	finite perturbation theory
FQHE	fractional quantum Hall effect
FRED-FET	fast recovery epitaxial diode FET
FRMR	field reversed mirror reactor
FSDE	fission suppressed direct enrichment (breeder blanket)
FSGO	floating spherical Gaussian orbitals
FSK	frequency-shift keying
FSS	fixed satellite service *or* frequency selective surface
FT	Fourier transform
FTIR	Fourier transform infrared *or* frustrated total internal reflection
FTR	Fast Test Reactor
FTTC	fibre-to-the-curb
FTTH	fibre-to-the-home
FWHM	full width half maximum
GAMBIT	gate modulated bipolar transistor
GANIL	Grand Accelerateur National à Ions Lourds
GASH	guanidine aluminium sulphate hexahydrate
GCC	gasification combined cycle
GCFR	gas-cooled fast breeder reactor
GCHWR	gas cooled heavy water moderated reactor
GCM	general circulation model *or* generator coordinate method
GCR	group code recording
GDR	giant dipole resonance
GEO	geostationary orbit
GETR	General Electric Test Reactor
GF	Galois field

GHF-NO-CI	generalised Hartree-Fock/natural orbital/configuration interactions
GIAO	gauge-invariant atomic orbitals
GIC	generalised immittance convertor *or* graphite intercalation compound
GIDL	gate induced drain leakage
GIS	gas insulated system (substation or switchgear) *or* geographic information system
GITL	gas insulated transmission line
GKS	Graphical Kernel System
GMDH	group method of data handling
GMR	giant monopole resonance
GMSK	Gaussian filtered MSK
GO	Gaussian orbitals *or* geometrical optics
GP	Guinier-Preston
GPED	gas phase electron diffraction
GPIB	general purpose interface bus
GPM	ground potential model
GPS	Global Positioning System
GQR	giant quadrupole resonance
GR	general relativity
GRIN	graded (gradient) refractive index
GSM	global system for mobile communications *or* Groupe Speciale Mobile
GSMBE	gas source molecular beam epitaxy
GSPC	gas scintillation proportional chamber (counter)
GT	group technology
GTD	geometrical theory of diffraction
GTHTGR	gas turbine HTGR
GTO	gate turn-off *or* Gaussian-type orbitals
GUI	graphical user interface
GUT	grand unified theory
GVB	generalised valence bond
HAWT	horizontal axis wind turbines
HBM	human body model
HBS	home bus system
HBT	heterojunction bipolar transistor *or* N-(p-hexyloxybenzylidene)-p-toluidene
HCDA	hypothetical core disruptive accident
HCI	human-computer interaction
HCMOS	high speed complementary MOS
HCP	hexagonal close packed
HCSEL	horizontal cavity surface emitting laser
HD-MAC	high definition MAC
HD-VCR	high definition VCR
HDD	hard disc drive
HDI	high density interconnect
HDL	hardware description language
HDLC	high level data link control
HDMI	high-density multichip interconnect
HDPE	high density polyethylene
HDSL	high bit-rate digital subscriber lines
HDTV	high definition television
HEED	high energy electron diffraction
HeLa	Henrietta Lacks
HEMP	high altitude electromagnetic pulse
HEMT	high electron mobility transistor
HET	hot electron transistor
HEU	highly enriched uranium (93% U^{235})
HEU/Th	highly enriched U/Th fuel
HEXFET	hexagonal MOSFET
HF	Hartree-Fock *or* high frequency
HFEF	Hot Fuel Examination Facility
HFET	heterojunction field effect transistor
HFIR	high flux isotope reactor
HFITR	High Field Ignition Test Reactor
HFS	Hartree-Fock-Slater *or* hyperfine structure
HGMS	high gradient magnetic separation
HI	heavy ion
HID	high intensity discharge
HIFET	heterointerface field effect transistor
HIGFET	heterostructure insulated gate FET
HIP	hot isostatic pressing
HIPPI	high performance parallel interface
HIXE	heavy ion induced X-ray emission
HJBT	heterojunction bipolar transistor
HJFET	heterojunction field effect transistor
HLL	high level language
HLLW	high level liquid waste
HLW	high level waste
HMC	hidden Markov chain
HMM	hidden Markov model
HMO	Huckel molecular orbitals
HMOS	high-performance metal-oxide-semiconductor
HMTSeF	hexamethylenetetraselenafulvalene (-inium)
HMTTF	hexamethyltetrathiofulvalene (-inium)
HOAB	heptyloxyazoxybenzene
HOE	holographic optical elements
HOMO	highest occupied molecular orbitals
HPCI	high pressure coolant injection
HPCS	high-pressure core sprays
HREELS	high resolution EELS
HREM	high resolution electron microscopy
HSLA	high strength low alloy (steel)
HSLAN	high speed LAN
HT	high tension
HTGR	high temperature gas-cooled reactor
HTGRSC/C	HTGR steam cycle cogeneration
HTSC	high temperature superconductor
HTTR	High Temperature Engineering Test Reactor
HUD	head-up display
HV	high voltage
HVAC	heating, ventilation and air conditioning *or* high voltage alternating current
HVDC	high voltage direct current
HVEM	high voltage electron microscopy
HVIC	high voltage integrated circuit
HWLWR	heavy water moderated LWR
HWR	heavy water reactor
HZE	high Z and energy
HZP	hot zero power
I-V	current-voltage
i.i.d.	independently identically distributed
I/O	input/output
I^2L	integrated injection logic
I^3L	isoplanar I^2L

IAEA	International Atomic Energy Agency
IAR	isobaric analogue resonance
IAS	isobaric analogue state
IBA	interacting boson approximation
IBCN	integrated broadband communication network
IBFA	interacting boson-fermion approximation
IBM	interacting boson model *or* International Business Machines
IBPBAC	isobutyl-4-(4'-phenylbenzylidene-amino) cinnamate
IBT	insulated base transistor
IC	integrated circuit
ICB	ionised cluster beam
ICDF	intermediate coupling Dirac-Fock
ICF	inertial confinement fusion
ICMA	idle signal casting multiple access
ICP	inductively coupled plasma
ICPP	Idaho Chemical Processing Plant
ICRF	ion cyclotron range of frequencies
ICRH	ion cyclotron resonance heating
ICTS	isothermal capacitance transient spectra(-oscopy)
IDDQ	quiescent power supply current
IDFL	integral diode FET logic
IDT	interdigital transducer
IDTV	improved definition television
IEC	interexchange carrier *or* International Electrotechnical Commission
IEPA	independent electron pair approximation
IETS	inelastic electron tunnelling spectra (-oscopy)
IF	intermediate frequency
IFA	ionisation front accelerator
IFE	intelligent front end
IFM	instantaneous frequency measurement
IGBT	insulated gate bipolar transistor
IGCC	integrated gasification combined cycle
IGES	Initial Graphics Exchange Specification
IGFET	insulated gate field effect transistor
IGT	insulated gate transistor
IHEP	Institute of High Energy Physics
IIR	infinite impulse response
IKBS	intelligent knowledge based system
IKO	Institute v. Kernph Ouder (Amsterdam)
ILS	instrument landing system
ILW	intermediate level (radioactive) waste
IMD	intermodulation distortion
IMPATT	impact avalanche transit time
IN	intelligent network
INDO	incomplete neglect of differential overlap
INDOR	internuclear double resonance
INEPT	insensitive nuclei enhanced by polarisation transfer
ING	intense neutron generator
INO	iterative natural orbital
INS	inertial navigation system *or* Information Network System
INTELSAT	International Telecommunications Satellite Consortium
INTOR	International Tokamak Reactor
INTUG	International Trade and User Group
IOCω	inclusion of the overlap charges in the omega
IPSE	integrated programming support environment *or* integrated project support environment
IPSS	international packet switching system
IR	infrared
IRBIC	infrared beam induced current(s) (contrast)
IREB	intense relativistic electron beam
IRED	infrared emitting diode
IRS	information retrieval system
IS	information system
ISABELLE	intersecting storage and acceleration
ISAR	inverse synthetic aperture radar
ISDN	integrated services digital network
ISDSN	integrated services digital satellite network
ISFET	ion-sensitive field effect transistor
ISI	intersymbol interference
ISL	integrated Schottky logic or inter-satellite links
ISO	International Standards Organization
ISR	intersecting storage ring
ISS	ion scattering spectroscopy
ISX	impurity study experiment
IT	information technology
ITC	ionic thermocurrents
ITEP	Institute of Theoretical and Experimental Physics
ITO	indium tin oxide
ITR	Ignition Test Reactor
ITU	International Telecommunication Union
IU	Indiana University (USA)
IVO	improved virtual orbitals
IVP	initial value problem
J^{π}	spin/parity (nuclear levels)
JAERI	Japan Atomic Energy Research Institute
JCL	job control language
JET	Joint European Torus
JFET	junction field effect transistor
JINR	Joint Institute for Nuclear Research
JIT	just-in-time
JT-60	Japanese Tokamak-60
JTIDS	Joint Tactical Information Distribution System
KBS	knowledge based system
KdV	Korteweg-de Vries
KEK	Japan National Laboratory for High Energy Physics
KKR	Korringa-Kohn-Rostoker
LAMPF	Los Alamos Meson Physics Facility
LAN	local area network
LATA	local access and transport area
LAWN	local area wireless network

LB	Langmuir-Blodgett
LBIC	light beam induced current(s)
LBLOCA	large break LOCA
LC	inductance-capacitance
LCA	logic cell array
LCAO	linear combination of atomic orbitals
LCBO	linear combinations of (semi-localised) leadless chip carrier
LCCC	leadless ceramic chip carrier
LCD	liquid crystal display/device
LCI	load commutated inverter
LCP	Large Coil Program *or* least cost planning
LCTF	Large Coil Test Facility
LD	laser diode
LDA	laser Doppler anemometry (-meter) *or* local density approximation
LDD	lightly doped drain
LDI	lossless discrete integrator
LDPE	low density polyethylene
LDV	laser Doppler velocimetry (-meter)
LEAR	Low Energy Antiproton Ring
LEC	liquid encapsulated Czochralski or local exchange carrier
LED	light emitting diode
LEED	low energy electron diffraction
LEFD	Large Experimental Fusion Device
LEIS	low energy ion scattering
LEMP	lightning electromagnetic pulse
LEO	low-Earth-orbit
LEP	Large Electron Positron (CERN)
LET	linear energy transfer
LEU	low enrichment uranium (10% U^{235})
LEU/Th	low enrichment U/Th fuel
LF	low frequency
LFSR	linear feedback shift register
LGA	land grid array
LHC	Large Hadron Collider (CERN)
LHPG	laser heated pedestal growth
LHRH	lower hybrid resonance heating
LIF	laser induced fluorescence
LIFO	last in, first out
LIM	linear induction motor
LIME	laser induced magnetically enhanced
LINAC	linear accelerator
LISP	List Processor (language)
LLTR	Large Leak Test Rig
LLW	low level (radioactive) waste
LMC	Large Magellanic Cloud
LME	liquid metal embrittlement
LMFBR	liquid metal fast breeder reactor
LMIS	liquid metal ion source
LMR	liquid metal reactor
LMS	least mean square
LMSS	land mobile satellite system
LMTO	linear combination of muffin tin orbitals
LMXB	low-mass X-ray binary
LNA	low noise amplifier
LNB	low noise block
LNG	liquified natural gas
LO	local oscillator *or* longitudinal optical
LOCA	loss of coolant accident
LOCE	loss of coolant experiment

LOCOS	local oxidation of silicon
LOF	loss of flow
LOFT	Loss of Flow Test Facility
LOFW	loss of feed water
LONA	low noise amplifier
LOOSP	loss of onsite power
LOS	line of sight
LOTOS	Language Of Temporal Ordering Specification
LP	linear programming
LPC	linear predictive coding
LPCS	low pressure core spray
LPCVD	low pressure CVD
LPE	liquid phase epitaxy
LPFL	low pinchoff-voltage FET logic
LPI	low probability of intercept
LQG	linear quadratic Gaussian
LRO	long-range order
LSA	least squares approximation *or* limited space charge accumulation
LSD	local spin density *or* loop shut-down
LSI	large-scale integration
LSPB	Large Scale Prototype Breeder
LSSD	level sensitive scan design
LSTF	Large Scale Test Facility
LTE	local thermodynamic equilibrium
LTI	linear time invariant
LTR	loop transfer recovery
LUMO	lowest unoccupied molecular orbitals
LV	low voltage
LWBR	light water breeder reactor
LWHCR	light water high convertor reactor
LWR	light water reactor

M1	magnetic dipole
M2	magnetic quadrupole
MAC	multiplexed analogue components *or* media access control
MAG	metal arc gas
MAGFET	magnetic field sensitive FET
MAGLEV	magnetic levitation
MAN	metropolitan area network
MAP	Manufacturing Automation Protocol
MARS	Mirror Advanced Reactor Study
MAS	magic angle spinning
MATE	modular automatic test equipment
MBBA	4-methoxybenzylidene-4'n-butylaniline
MBC	meteor burst communication
MBE	molecular beam epitaxy
MBPT	many body perturbation theory
MBR	model based reasoning
MCCB	moulded-case circuit breakers
MCCI	molten core-concrete interaction
MCD	magnetic circular dichroism
MCFC	molten carbonate fuel cell
MCFR	magnetic confinement fusion reactor
MCM	multichip module
MCP	microchannel plate
MCSCF	multiconfiguration SCF
MCVD	modified chemical vapour deposition
MCXα	multiconfiguration Xα
MDS	maximum distance separable
MEC	molecular electron correlation(s)

MEG	magnetoencephalography (-gram)
MEMS	microelectromechanical system
MESFET	metal-semiconductor FET
MEU	medium enrichment uranium (20% U^{235})
MEU/Th	medium enrichment U/Th fuel
MF	medium frequency
MFIE	magnetic field integral equation
MFM	magnetic force microscopy
MFP	mean free path
MFR	mirror fusion reactor
MFSK	multiple frequency shift keying
MFTF	Mirror Fusion Test Facility
MHD	magnetohydrodynamics
MHS	message handling system
MHTGR	modular HTGR
MIC	microwave integrated circuit
MID	magnetically insulated diode
MIDI	musical instrument digital interface
MIDP	microwave induced delayed phosphorescence
MIG	metal inert gas *or* metal-in-gap
MIL-STD	military standard
MIM	metal-insulator-metal
MIMD	multiple input (instruction), multiple data
MIMIC	millimetre-wave monolithic integrated circuit
MIMO	multiple input, multiple output
MIN	multiprocessor interconnection network
MIND	mass impregnated non-draining
MINDO	modified incomplete NDO
MIPS	million instructions per second
MIS	management information system *or* metal-insulator-semiconductor
MISFET	metal-insulator-semiconductor FET
MISO	multiple input, single output
MIT	Massachusetts Institute of Technology (USA)
MITATT	mixed tunnelling avalanche transit time
ML	machine language *or* meta-language
MLB	multilayer board
MLC	multilayer ceramic
MLE	maximum likelihood estimation
MLE	molecular layer epitaxy *or* maximum likelihood estimation
MLP	multiple layer perceptron
MLS	microwave landing system
MLSE	maximum likelihood sequence estimation
MLTF	multilayer thick film
MLW	medium level (radioactive) waste
MM	millimetre
MMF	magnetomotive force
MMI	man-machine interface
MMIC	monolithic microwave integrated circuit
MMU	memory management units
MNDO	modified neglect of differential overlap
MNOS	metal-nitride-oxide-semiconductor
MO	molecular orbitals
MOCVD	metal-organic chemical vapour deposition
MODFET	modulation doped FET
MODOR	microwave-optical double resonance
MODPOT	modulator potential
MOMBE	metal-organic MBE
MONOS	metal-oxide-nitride-oxide-semiconductor
MOPA	master oscillator power amplifier
MORB	mid-ocean ridge basalt
MOS	metal-oxide-semiconductor
MOSFET	metal-oxide-semiconductor FET
MOST	metal-oxide-semiconductor transistor
MOV	metal oxide varistor
MOVPE	metal-organic vapour phase epitaxy
MOX	mixed oxide fuel
MPH	moving plasmoid heater
MPSK	multiple phase shift keying
MPU	microprocessing unit
MQORC	modified quadrature overlapped raised cosine
MQW	multiple quantum well
MRAC	model reference adaptive control
MRC	minimum resolvable contrast
MRD	multiple-reference double excitation
MRI	magnetic resonance imaging
MRINDO	modified Rydberg INDO
MRP	manufacturing resources planning *or* materials requirements planning
MRS	monitored retrievable storage (radioactive waste)
MRT	minimum resolvable temperature
MS	management science
MSE	mean square error
MSI	medium scale integration
MSK	minimum shift keying
MSM	metal-semiconductor-metal
MSR	molten salt reactor
MSSM	minimal supersymmetric standard model
MSSW	magnetostatic surface wave
MSU	Michigan State University
MSW	magnetostatic waves
MSXα	multiple scattering Xα
MT	machine translation *or* magnetotelluric
MTBF	mean time between failures
MTF	modulation transfer function
MTI	moving target indicator
MTL	merged-transistor logic
MTTF	mean time to failure
MTTR	mean time to repair
MTXα	muffin-tin Xα
μCF	muon catalysed fusion
μP	microprocessor
μSR	muon spin rotation (resonance)
MUF	material unaccounted for *or* maximum usable frequency
MUMPS	Multi-User Multi-Programming System
MUSE	multiple sub-Nyquist sampling encoding
MUSIC	multiple signal characterisation
MV	medium voltage
MVTL	modified variable threshold logic
MWPC	multiwire proportional chamber

NAA	neutron activation analysis
NAL	National Accelerator Laboratory
NAND	NOT-AND (logic)
NAPLPS	North American Presentation Level Protocol Syntax
NASA	National Aeronautics and Space Administration
NATO	North Atlantic Treaty Organisation
NBETF	Neutral Beam Engineering Test Facility
NBFM	narrowband frequency modulation
NBI	neutral beam injection
NBPS	neutral beam power systems
NC	numerical control
NCAR	National Center for Atmospheric Research (USA)
NCBR	nitrine cooled breeder reactor
NCMET	non-closed shell many electron theory
NDDO	neglect of diatomic differential overlap
NDE	nondestructive evaluation
NDO	neglect of differential overlap
NDR	negative differential resistance
NDRO	nondestructive readout
NDT	nondestructive testing
NEA	negative electron affinity
NET	Next European Tokamak
NETD	noise equivalent temperature differential
NEXAFS	near-edge X-ray absorption fine structure
NEXT	near-end crosstalk
NGS	nuclear generating station
NHS	National Health Service (UK)
NIC	negative impedance convertor
NICAM	near-instantaneously companded audio multiplex
NIST	National Institute of Standards and Technology (USA)
NLC	nematic liquid crystal
NLP	natural language processing
NLTE	non-local thermodynamic equilibrium
NMOS	n-channel MOS
NMR	nuclear magnetic resonance
NMR-CN	NMR on oriented nuclei
NNI	network node interface
NNNDO	neglect of non-neighbour differential overlap
NOAA	National Oceanic and Atmospheric Administration (USA)
NOFC	New Oxide Fuels Complex (BNFL)
NOR	NOT-OR (logic)
NOVA	nonoverlapping super-self-aligned
NP	nondeterministic polynomial
NPL	National Physical Laboratory (UK)
NPP	nuclear power plant
NQR	nuclear quadrupole resonance
NRC	Nuclear Regulatory Commission (USA)
NRD	nonradiative dielectric
NRM	natural remanent magnetisation
NRZ	non-return to zero
NRZI	non-return to zero inverted
NS	Navier-Stokes (equations)
NSLS	National Synchrotron Light Source
NSRR	Nuclear Safety Research Reactor
NSSS	nuclear steam supply system
NTD	neutron transmutation doping
NTE	network termination equipment
NTL	nonthreshold logic
NTSC	National TV Standards Committee
NTU	network termination unit
NVL	night vision laboratory
NVRAM	nonvolatile random access memory
NWA	network analyser
NWPA	Nuclear Waste Policy Act (USA)
OA	office automation
OAM	operations, administration and maintenance
OAM&P	operations, administration, maintenance and provisioning
OBIC	optical beam induced current(s)
OCR	optical character recognition
OCRWM	Office of Civilian Radioactive Waste Management (USA)
ODA	Office Document Architecture
ODE	ordinary differential equation
ODMR	optical detection of magnetic resonance
OEIC	optoelectronic integrated circuit
OEM	original equipment manufacture(r)
OER	oxygen enhancement ratio
OH	ohmic heating
OHTE	Ohmically Heated Toroidal Experiment
OISF	oxidation induced stacking fault
OMCVD	organometallic CVD
OMI	optical mode interference
OMVPE	organometallic vapour phase epitaxy
ONA	open network architecture
ONO	oxide-nitride-oxide
OOP	object-oriented programming
OPAC	online public access catalogue
OPGW	optical fibre composite ground wire
OPHF	orbital polarised Hartree-Fock
OPW	orthogonal plane wave
OQPSK	offset quadrature phase shift keying
OR	operations research
ORELA	Oak Ridge Electron Linear Accelerator (USA)
ORNL	Oak Ridge National Laboratory (USA)
OS	operating system
OSI	Open Systems Interconnection
OTA	operational transconductance amplifier
OTDR	optical time domain reflectometry
OTEC	ocean thermal energy conversion
OTF	optical transfer function
OTH	over the horizon
OTS	Orbital Test Satellite
OTSG	once-through steam generator
OZI	Okubo-Zweig-Lizuha (quark model)
PAA	paraazoxyanisole
PABX	private automatic branch exchange
PAC	perturbed angular correlation
PACS	picture archiving and communication systems
PAFC	phosphoric acid fuel cells

PAHR	post-accident heat removal
PAL	phase alternate line *or* programmable array logic
PAM	programmable active memory or pulse amplitude modulation
PAP	paraazoxyphenetole
PARS	private advanced radio service
PBF	power bursts facility
PBFA	Particle Beam Fusion Accelerator
PBH	planar buried heterostructure
PBL	planetary boundary layer
PBR	pebble bed reactor
PBT	permeable base transistor
PBW	power-by-wire
PBX	private branch exchange
PC	personal computer *or* printed circuit *or* programmable controller
PCAC	partially conserved axial currents
PCB	polychlorinated biphenyl *or* printed circuit board
PCES	phase change energy storage
PCI	pellet-cladding interaction
PCILO	perturbative configuration interaction using localised orbitals
PCILOCC	PCILO for crystal calculation
PCM	phase change material *or* pulse code modulation
PCN	personal communications network
PCRV	prestressed concrete reactor vessel
PCV	primary containment vessel
PCX	plasma confinement experiment
PD	partial discharge
PDB	planar doped barrier
PDE	partial differential equation
PDF	probability density (distribution) function
PDH	plesiochronous digital hierarchy
PDX	Poloidal Divertor Experiment
PE	phase encoded
PEC	photoelectrochemical cell
PECVD	plasma enhanced CVD
PEEK	polyaryletheretherketone *or* polyetheretherketone
PEEL	programmable electrically erasable logic
PEM	photoelectromagnetic
PEP	Positron Electron Photon (collider, Stanford, USA)
PES	photoelectron spectra (-oscopy)
PET	polyethylene terephthalate *or* positron emission tomography
PETRA	Positron Electron Tandem Ringbeschleuniger Anlage
PF	poloidal field *or* power factor
PFBC	pressurised fluidised bed combustion
PFM	pulse frequency modulation
PFR	Prototype Fast Reactor
PGA	pin grid array
PHWR	pressurised heavy water reactor
PIC	particle-in-cell
PID	proportional+integral+differential (derivative)
PIPECO	photoion photoelectron coincidence
PIUS	process inherent ultimately safe
PIXE	photon induced X-ray emission
PLA	phase locked array *or* programmable logic array
PLBR	Prototype Large Breeder Reactor
PLC	programmable logic control
PLCC	plastic leadless chip carrier
PLD	programmable logic device
PLEX	plant life extension
PLL	phase locked loop
PLT	Princeton Large Torus
PLZT	lead lanthanum zirconate titanate
PM	permanent magnet *or* phase modulation *or* pulse modulation
PMDR	phosphorescence microwave double resonance
PMMA	polymethylmethacrylate
PMOS	p-channel metal-oxide-semiconductor
PMR	proton magnetic resonance
PMS	pre-main sequence
PN	planetary nebula(e) *or* pseudonoise
PNDO	partial neglect of differential overlap
PNO-CI	pair natural orbital configuration interaction
PNS	Pulsed Neutron Source
PO	physical optics
POL	pair orthogonalised Lowdin
PON	passive optical network
POPAE	protons on protons and electrons
POPOP	phenyl-oxazolyl-phenyl-oxazolyl-phenyl
PORV	power operated relief valve
POS	point of sale
POTS	plain old telephone service
PPB	parts per billion
PPDP/S	Pariser-Parr-Del Bene-Pople/Segal calculations
PPI	plan position indicator
PPM	parts per million *or* pulse position modulation
PPP	Pariser-Parr-Pople
PQFP	plastic quad-flat-pack
PRA	probabilistic risk assessment
PRAM	parallel random access machine
PRDDO	partial retention of diatomic differential overlap
PREPP	Process Experimental Pilot Plant
PRF	pulse recurrence (repetition) frequency
PRIME	positive resist images by dry etching
PRMA	packet reservation multiple access
PRN	packet radio networks
PROLOG	Programming in Logic (language)
PROM	Pockels readout optical modulator *or* programmable ROM
PS	proton synchrotron (CERN)
PSA	probabilistic safety assessment
PSD	power shut-down or power spectral density
PSDN	packet switched data network
PSK	phase shift keying
PSS	packet switching service *or* Packet SwitchStream (UK) *or* power system stabilisers
PSTN	public switched telephone network

PSU	power supply unit
PTD	physical theory of diffraction
PTF	polymer thick film
PTFE	polytetrafluoroethylene
PTH	plated through hole
PTM	pulse time modulation
PTT	Posts, Telephones and Telegraphs Administration
PV	photovoltaic
PVC	polyvinyl chloride
PVD	physical vapour deposition
PVDF	polyvinylidene fluoride
PVER	pattern visual evoked response
PWA	partial wave analysis
PWB	printed wiring board
PWBA	plane wave Born approximation
PWIA	plane wave impulse approximation
PWM	pulse width modulation
PWR	pressurised water reactor
PZT	lead zirconate titanate

QA	quality assurance
QAM	quadrature amplitude modulation
QASK	quadrature amplitude shift keying
QBO	quasi-biennial oscillation
QC	quality control
QCD	quantum chromodynamics
QDMBPT	quasi-degenerate MBPT
QED	quantum electrodynamics
QFP	quad-flat-pack *or* quantum flux parametron
QFSK	quadrature frequency shift keying
QFT	quantum field theory
QGP	quark-gluon plasma
QHD	quantum hadrodynamics
QHE	quantum Hall effect
QMD	quantum molecular dynamics
QMF	quadrature mirror filter
QORC	quadrature overlapped raised cosine
QOSRC	quadrature overlapped squared raised cosine
QPM	quark-parton model
QPO	quasi-periodic oscillation
QPR	quadrature partial response
QPRS	quadrature partial response signalling
QPSK	quaternary phase shift keying
QRC	quasi-resonant converter
QSO	quasi-stellar object (quasar)
QWITT	quantum well injection transit time

R&D	research and development
RACE	Research and Development in Advanced Communications Technologies in Europe
RAD	ribbon-against-drop
RAM	radar absorbing material *or* random access memory *or* reliability, availability and maintainability
RAMDAC	random access memory digital/analogue convertor
RAN	radio area network
RBE	relative biological effectiveness
RBMK	light water cooled, graphite moderated reactor
RBOC	Regional Bell Operating Company
RBS	Rutherford backscattering
RC	resistance-capacitance
RCCB	residual current circuit breaker
RCD	residual current device
RCIC	reactor core isolation cooling
RCS	radar cross-section *or* rapid cycling synchrotron *or* reactor coolant systems
RCTL	resistor-capacitor-transistor logic
RDBMS	relational DBMS
RDS	Radio Data System
RDSS	radio determination satellite service
REA	rod ejection accident
REELS	reflection electron energy loss spectra (-oscopy)
RELP	residual excited linear prediction
REM	reflection electron microscopy
REMPI	resonance enhanced multiphoton ionisation
RF	radio frequency
RFI	radio frequency interference
RFP	reversed field pinch *or* request for proposals
RFPR	reversed field pinch reactor
RFX	reversed field (pinch) experiment
RG	renormalisation group
RGB	red, green, blue
RGM	resonating group method
RHEED	reflection high energy electron diffraction
RHET	resonant hot electron transistor
RHF	restricted Hartree-Fock
RIA	reactivity initiated accident
RIBE	reactive ion beam etching
RICH	ring imaging Cherenkov detector
RIE	reactive ion etching
RINDO	Rydberg incomplete NDO
RISC	reduced instruction set computer
RKKY	Rudermann-Kittel-Kasuya-Yosida
RLC	resistance-inductance-capacitance
RLS	recursive least squares
RMS	root-mean-square
RNA	ribonucleic acid
RNS	residue number system
ROM	read-only memory
ROXNOX	reoxidised nitrided oxide
RPA	random phase approximation
RPAE	RPA with exchange
RPC	resistive plate chamber/counter
RPM	relaxation potential model *or* revolutions per minute
RPV	reactor pressure vessel *or* remote piloted vehicle
RS	Reed-Solomon
RT	room temperature
RTA	rapid thermal annealing
RTD	resonant tunnelling diode
RTG	radioisotope thermoelectric generators
RTI	road traffic informatics
RTL	resistor-transistor logic *or* register transfer level
RTN	rapid thermal nitridation

RTO	rapid thermal oxidation
RTP	rapid thermal processing
RTT	resonant tunnelling transistor
RTTY	radio teletypewriter *or* remote teletype terminal
RVB	resonating valence bond
S/H	sample and hold
S/N	signal-to-noise
SAA	Systems Application Architecture
SAG	self-aligned gate
SAINT	self-aligned implantation for N^+-layer technology
SAIR	synthetic aperture interferometric radar
SAM	scanning acoustic microscopy *or* scanning Auger microscopy *or* serial access memory
SAMO	simulated ab initio molecular orbitals
SAMOS	stacked gate avalanche injection metal-oxide-semiconductor
SAMPLE	simulation and modelling of profile in lithography and etching
SAN	small area network
SANS	small-angle neutron scattering
SAR	synthetic aperture radar
SARSAT	search and rescue satellite aided tracking
SAW	surface acoustic waves *or* self-avoiding walk
SAXS	small-angle X-ray scattering
SBE	super birefringence effect
SBH	strip buried heterostructure
SBLOCA	small break LOCA
SBS	stimulated Brillouin scattering
SC	switched capacitor
SCADA	supervisory control and data acquisition
SCARA	selective compliance assembly robot arm
SCC	stress corrosion cracking
SCF	self-consistent field
SCFL	source-coupled FET logic
SCH	separate confinement heterostructure
SCL	space charge limited
SCM	subcarrier multiplex(ing)
SCPC	single channel per carrier
SCR	silicon controlled rectifier
SCSI	Small Computer System Interface
SCTF	Slab Core Test Facility
SDF	synthetic discriminant function
SDFL	Schottky-diode FET logic
SDH	synchronous digital hierarchy
SDI	selective dissemination of information *or* Strategic Defense Initiative (USA)
SDL	Specification and Description Language
SDLC	synchronous data link control
SDM	space division multiplexing
SDMA	space division multiple access
SDW	spin density wave
SEAM	scanning electron acoustic microscopy
SED	stochastic electrodynamics
SEED	self-electrooptic effect device
SEG	selective epitaxial growth
SEL	surface emitting laser
SEM	scanning electron microscopy
SEP	somatosensory evoked potential
SERC	Science and Engineering Research Council
SERS	surface enhanced Raman scattering
SETI	search for extraterrestrial intelligence
SEU	single event upset
SEXAFS	surface extended X-ray absorption fine structure
SFE	solar-flare effect
SFL	substrate-fed logic
SFM	scanning force microscopy
SGEMP	system generated electromagnetic pulse
SGHWR	steam generating heavy water reactor
SGML	Standard Generalized Markup Language
SGMP	sol-gel microsphere pelletisation
SHF	superhigh frequency
SHG	second harmonic generation
SHOOT	superfluid helium on-orbit transfer
SHR	self-healing rings *or* South Hall Ring (MIT-Bates)
SHV	superhigh voltage
SI	semi-insulating *or* Systeme Internationale
SICOS	sidewall base contact structure
SIF	stress intensity factor
SIL	single-in-line
SIMD	single instruction, multiple data
SIMOS	stacked-gate injection MOS
SIMOX	separation by implantation of oxygen
SIMS	secondary ion mass spectra (-oscopy)
SIN	Swiss Institute of Nuclear Research
SINDO	scaled incomplete NDO
SIPOS	semi-insulating polycrystalline silicon
SIR	Safe Integral Reactor
SIS	semiconductor-insulator-semiconductor *or* superconductor-insulator-superconductor
SISAM	spectrometer with interference selective amplitude modulation
SISFET	semiconductor-insulator-semiconductor FET
SISO	single input, single output
SIT	static induction transistor
SLAC	Stanford Linear Accelerator
SLAM	scanning laser acoustic microscopy
SLC	smectic liquid crystal *or* Stanford Linear Collider
SLD	strict logical determinacy
SLIA	Spiral Line Induction Accelerator
SLIC	subscriber line interface circuit
SLM	spatial light modulator
SLSF	Sodium Loop Safety Facility
SMA	surface mount(ed) assembly
SMATV	satellite master antenna television
SMC	Small Magellanic Cloud *or* surface mount(ed) component
SMD	surface mount(ed) device
SMDS	switched multimegabit data service

SMES	superconductive magnetic energy storage
SMIF	standard mechanical interface
SMOBC	solder mask over bare copper
SMPS	switched mode power supply
SMQORC	staggered modified quadrature overlapped raised cosine
SMT	surface mount(ed) technology
SN	supernova(e)
SNA	Systems Network Architecture
SNM	special nuclear material
SNMP	simple network management protocol
SNR	signal-to-noise ratio or supernova remnant
SNS	spallation neutron source or superconducting normal superconducting
SOA	safe operating area
SOFC	solid oxide fuel cells
SOG	spin on glass *or* strongly orthogonal geminal *or* sea-of-gates
SOI	silicon on insulator
SOIC	small outline integrated circuit
SOL	scrape-off layers
SONET	synchronous optical network
SOP	small outline package
SOR	successive over-relaxation *or* synchrotron orbital radiation
SOS	silicon on sapphire
SOT	small outline transistor
SPA	separated pair approximation
SPARC	scaleable processor architecture *or* Standards Planning and Requirements Committee (of ANSI)
SPC	statistical process control *or* stored program control
SPCP	single parity check product (code)
SPE	solid phase epitaxy
SPEAR	Stanford Positron Electron Asymmetric Ring
SPECT	single photon emission computerised tomography
SPICE	Simulation Program with Integrated Circuit Emphasis
SPLEED	spin polarised low energy electron diffraction
SPN	stochastic Petri net
SPRITE	signal processing in the element
SPS	Super Proton Synchrotron (CERN)
SPUDT	single-phase unidirectional transducer
SQAM	superposed quadrature amplitude modulation
SQC	statistical quality control
SQL	Structured Query Language
SQPR	staggered quadrature partial response
SQPSK	staggered quadrature PSK
SQS	self-quenching streamer chamber
SQUID	superconducting quantum interference device
SQW	single quantum well
SR	synchrotron radiation
SRAM	static random access memory
SREMP	source region electromagnetic pulse
SRM	switched reluctance motors
SRMCASE	symmetry-restricted-multiconfiguration annihilation of single excitations
SRO	short-range order
SRS	stimulated Raman scattering
SRV	safety release valve
SS	spread spectrum
SS-TDMA	satellite switched TDMA
SS7	Signalling System No.7
SSB	single sideband
SSBW	surface skimming bulk wave
SSC	sudden storm commencement *or* Superconducting Super Collider
SSCR	spectrum shift controlled reactor
SSFL	Schottky-barrier coupled Schottky-barrier gate FET logic
SSFLC	surface stabilised ferroelectric liquid crystal
SSI	small scale integration
SSMA	spread spectrum multiple access
SSNTD	solid-state nuclear track detector
SSR	subsynchronous resonance
SST	sea surface temperature *or* supersonic transport *or* super self-aligned technology
SSV	structured singular value
STD	salinity-temperature-depth *or* subscriber trunk dialling
STEC	solar thermal energy conversion
STEM	scanning transmission electron microscopy
STI	scientific and technical information
STL	Schottky transistor logic
STM	scanning tunnelling microscopy *or* synchronous transfer mode
STN	super twisted nematic
STO	Slater-type orbitals
STOL	short take-off and landing
STP	Slater-transfer Preuss
STS	scanning tunnelling spectra(-oscopy)
SURMAC	surface magnetic confinement
SUSY GUT	supersymmetric grand unified theory
SVC	static VAr compensator
SVD	singular value decomposition
SW	short wave
SWAMI	sidewall masked isolation
SWEPP	Stored Waste Examination Pilot Plant
SWR	sodium water reactor *or* standing wave ratio
SXAPS	soft X-ray appearance potential spectra (-oscopy)
SXLS	Superconducting X-ray Lithography Source
T/R	transmit/receive
TAB	tape automated bonding
TACS	Total Access Communications System
TASI	time assignment speech interpolation
TAT	transatlantic telephone cable
TBBA	terephthal-butylaniline
TBDF	transborder data flow
TCAS	traffic alert and collision avoidance system
TCE	temperature coefficient of expansion

TCM	trellis coded modulation
TCNE	tetracyanoethylene
TCNQ	tetracyanoquinodimethane
TCP/IP	Transport Control Protocol/Internet Protocol
TCR	temperature coefficient of resistance *or* thyristor controlled reactor
TCXO	temperature compensated crystal oscillator
TDDB	time dependent dielectric breakdown
TDF	Technology Demonstration Facility *or* transborder data flow
TDHF	time dependent Hartree-Fock
TDI	time delay and integration
TDM	time division multiplex(ing)
TDMA	time division multiple access
TDMF	time dependent mean field theory
TDPAC	time differential PAC
TDR	time domain reflectometry
TDRSS	tracking and data relay satellite system
TDS	thermal desorption spectra (-oscopy)
TE	transverse electric
TEA	transversely excited atmosphere
TED	transferred electron device
TEGFET	two-dimensional electron gas FET
TEM	transmission electron microscopy *or* transverse electromagnetic
TEO	transferred electron oscillator
TEOS	tetraethylorthosilicate
TEXT	Texas Experimental Tokamak
TF	toroidal field
TFCX	Toroidal Fusion Core Experiment
TFEL	thin film electroluminescent
TFT	thin film transistor
TFTR	Tokamak Fusion Test Reactor
TGA	thermogravimetric analysis
TGFB	triglycine fluoroberyllate
TGS	triglycine sulphate
TGSe	triglycine selenate
THF	tremendously high frequency
THORP	Thermal Oxide Reprocessing Plant
THORS	Thermal Hydraulic Out-of-Reactor Safety Facility
THTF	Thermal Hydraulic Test Facility
TID	travelling ionospheric disturbance
TIG	tungsten inert gas
TIL	two interdigitation level
TJS	transverse junction stripe
TLD	thermoluminescent dosimeter (-ry)
TLM	transmission line matrix
TM	transverse magnetic
TMC	test module coil
TMHR	tandem mirror hybrid reactor
TMI	Three Mile Island
TMMC	tetramethylammonium manganese chloride
TMN	telecommunications management network
TMR	tandem mirror reactor
TMS	truth maintenance system
TMTSF	tetramethyltetraselenafulvalene (-inium)
TMTTF	tetramethyltetrathiafulvalene (-inium)
TMX-U	Tandem Mirror Experiment-Upgrade
TNS	The Next Step
TOF	time-of-flight
TOFMS	time-of-flight mass spectra
TOP	Technical Office Protocol *or* transient overpower accident
TPAD	time differential perturbed angular distribution
TPC	time projection chamber
TPD	temperature programmed desorption
TPTF	Two Phase Flow Test Facility
TQM	total quality management
TR^3	time resolved resonant Raman (spectra (-oscopy))
TRAPATT	trapped plasma avalanche triggered transit
TREAT	Transient Reactor Test Facility
TRM	thermoremanent magnetisation
TRRR	time resolved resonant Raman (spectra (-oscopy))
TRU	transuranic (waste)
TSC	thermally stimulated currents
TSD	thermally stimulated desorption
TSEE	thermally stimulated exo-electron emission
TSeF	tetraselenafulvalene (-inium)
TSeT	tetraselenatetracene
TSIC	thermally stimulated ionic currents
TSMA/PCD	tone sense multiple access/partial collision detection
TSR	terminate and stay resident
TSTA	Tritium Systems Test Facility
TTC	telemetry tracking and command
TTF	tetrathiafulvalene (-inium)
TTL	transistor-transistor logic
TTMP	transit time magnetic pumping
TTT	temperature-time-transformation *or* tetrathiatetracene
TTY	teletype terminal
TUCA	transient undercooling accident
TUCOP	transient undercooled overpower accident
TUNNETT	tunnel transit time
TV	television
TVRO	TV receive only
TW	travelling wave
TWA	travelling wave amplifier
TWOA	travelling wave optical amplifier
TWT	travelling wave tube
TWTA	TWT amplifier
UART	universal asynchronous receiver transmitter
UCHF	uncoupled Hartree-Fock
UCN	ultra cold neutrons
UHF	ultra high frequency *or* unrestricted Hartree-Fock
UHPS	underground hydroelectric pumped storage
UHV	ultra high voltage
UIMS	user interface management system
UJT	unijunction transistor
UKAEA	United Kingdom Atomic Energy Authority

ULA	uncommitted logic array
ULF	ultra low frequency
ULSI	ultra-large scale integration
UMD	unitised microwave devices
UNI	user-network interface
UPS	ultraviolet photoelectron spectra (-oscopy) *or* uninterruptible power supply
US	ultrasonic
USART	universal synchronous/asynchronous receiver transmitter
UTD	uniform theory of diffraction
UUT	unit under test
UV	ultraviolet

VAD	vapour phase axial deposition
VAN	value added network
VANS	value added network services
VAWT	vertical axis wind turbine
VB	valence bond
VBL	vertical Bloch line
VCCS	voltage controlled current source
VCO	voltage controlled oscillator
VCR	video cassette recorder
VCSEL	vertical cavity surface emitting laser
VCVS	voltage controlled voltage source
VCXO	voltage controlled crystal oscillator
VDM	vector dominance model *or* Vienna Development Methodology
VDMOS	vertical double diffused MOS
VDT	visual display terminal
VDU	visual display unit
VDW	van der Waals
VER	visual evoked response
VFD	vacuum fluorescent display
VFO	variable frequency oscillator
VGA	Video Graphics Array
VHDL	VHSIC Hardware Description Language
VHF	very high frequency
VHPIC	very high performance integrated circuit
VHSIC	very high speed integrated circuit
VHSOL	very high speed optical loop
VHV	very high voltage
VI&P	visual, intelligent and personal (communications)
VIPER	verified processor for enhanced reliability
VJFET	vertical junction FET
VLBI	very long base line interferometry
VLF	very low frequency
VLIW	very long instruction word
VLSI	very large scale integration
VM	virtual machine
VMOS	vertical channel MOS
VOR	VHF omnidirectional range
VPE	vapour phase epitaxy
VQ	vector quantisation
VRAM	video random access memory
VRC	visual record computer
VS	virtual storage
VSAT	very small aperture terminals
VSB	vestigial sideband
VSEPR	valence shell electron pair repulsion
VSI	voltage source invertor
VSP	vertical seismic profiling
VSS	variable structure systems
VSWR	voltage standing wave ratio
VTOL	vertical take-off and landing
VTR	video tape recorder *or* voltage transformation ratio
VUV	vacuum ultraviolet
VVER	water moderated water cooled reactors
VVVF	variable voltage variable frequency
VXIbus	VMEbus extension for instrumentation

WAN	wide area network
WARC	World Administrative Radio Conference
WASP	WSI associative string processor
WATS	wide area telecommunications service
WAXS	wide-angle X-ray scattering
WDF	wave digital filter
WDM	wavelength division multiplex(ing)
WECS	wind energy conversion system
WHT	Walsh-Hadamard transform
WIMP	weakly interacting massive particle *or* windows, icons, mice, pull-down menus
WIP	work in progress
WIPP	Waste Isolation Pilot Plant
WKB	Wentzel-Kramers-Brillouin
WORM	write once, read many times
WP	word processing
WR	Wolf-Rayet
WSI	wafer scale integration
WWER	water moderated water cooled reactors
WYSIWYG	what you see is what you get
WZW	Wess-Zumino-Witten

XANES	X-ray absorption near edge structure
XLPE	cross-linked polyethylene
XLS	X-ray Lithography Source
XOR	exclusive OR (logic)
XPD	cross-polarisation discrimination
XPS	X-ray photoelectron spectra
XRD	X-ray diffraction
XTEM	cross-sectional transmission electron microscopy
XUV	X-ray-ultraviolet

YAG	yttrium aluminium garnet
YIG	yttrium iron garnet
YTO	YIG tuned oscillator

ZBLAN	zirconium barium lanthanum aluminium sodium fluoride
ZBLANP	zirconium barium lanthanum aluminium sodium lead fluoride
ZCS	zero current switching
ZEKE	zero kinetic energy
ZGS	zero gradient synchrotron
ZIF	zero insertion force
ZMR	zone melting recrystallisation
ZPPR	zero power plutonium reactor
ZTP	Z toroidal pinch
ZVS	zero voltage switchin

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AF oscillators *see audio-frequency oscillators*

AFC *see automatic frequency control*

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antisite defects *see point defects*

AOI *see automatic optical inspection*

APCVD *see chemical vapour deposition*

APCVD epitaxial growth *see vapour phase epitaxial growth*

APD *see avalanche photodiodes*

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API *see application program interfaces*

API gravity *see density*

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apparatus *see instrumentation; instruments; laboratory techniques*

apparent porosity *see porosity*

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CBE *see chemical beam epitaxial growth*

CBT *see computer based training*

CCCS *see active networks*

CCD *see charge-coupled devices*

CCD circuits *see charge-coupled device circuits*

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CCD imagers *see CCD image sensors*

CCII *see current conveyors*

CCIR standards *see standards*

CCTV *see closed circuit television*

CCVS *see active networks*

CD-ROM publication *see optical publishing*

CD-ROM searching *see information retrieval*

CD-ROMs
- *see also jukebox storage systems*
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CDMA *see code division multiple access*

CDs (audio) *see audio discs*

CDW *see charge density waves*

Ceefax *see teletext*

Cellnet *see cellular radio; radiotelephony*

cells (electric)
- *see also fuel cells; photoelectric cells; photoelectrochemical cells; primary cells; secondary cells*
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DPSK *see differential phase shift keying*

DQDB *see access protocols; metropolitan area networks*

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EDX *see X-ray chemical analysis*

EEG *see electroencephalography*

EELS *see electron energy loss spectra*

EEPROM *see EPROM*

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FDTD analysis *see finite difference time-domain analysis*

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GSMBE *see chemical beam epitaxial growth*

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IKBS *see knowledge based systems*

I^2L *see integrated injection logic*

illumination *see lighting*

illumination control *see lighting control*

ILS *see instrument landing systems*

image amplifiers *see image intensifiers*

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i.e. insulating devices. For materials see "insulating materials" or NTs as appropriate

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JFET *see junction gate field effect transistors*

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ODENDOR *see optical double resonance*

ODMR *see microwave-optical double resonance*

odometers *see distance measurement*

oecology *see ecology*

OEIC *see integrated optoelectronics*

OEM *see DP industry*

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PCM *see pulse code modulation*
PCM (computing industry) *see DP industry*
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RCD *see residual current devices*

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SREMP *see electromagnetic pulse*

SRM drives *see reluctance motor drives*

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SSNTD *see solid-state nuclear track detectors*

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VME Sub Bus *see system buses*

VMEbus *see system buses*

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